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COMPARATIVE COSTS OF BASE ADMINISTRATIVE TELEPHONE SERVICE PROV--ETC(U)
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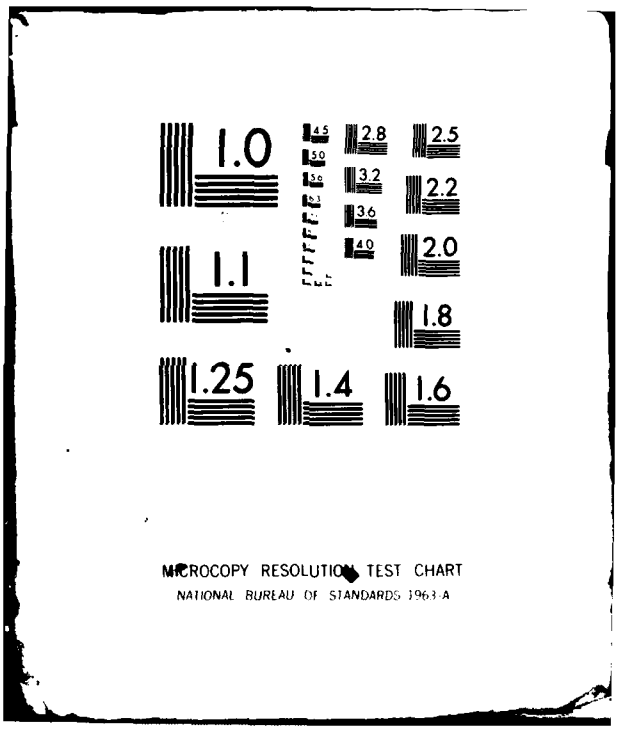
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The purpose of the study was to evaluate the comparative cost of AF base administrative telephone service provided by government and commercial telephone plants. Fiscal year 1979 costs were surveyed and compared for 10 commercial and 10 government telephone plants. Cost data was normalized

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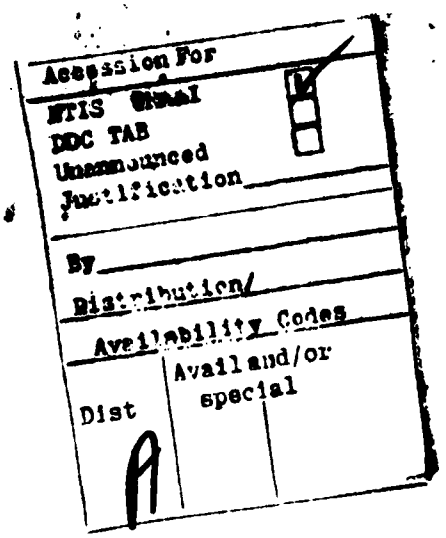

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NOVEMBER 1979

PREPARED BY:

STUDIES & ANALYSIS
HQ AIR FORCE COMMUNICATIONS COMMAND
SCOTT AIR [illegible]

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ABSTRACT

Comparative Cost of Base Administrative Telephone Service

Provided by Commercial and Government Telephone Plants

Purpose of the study was to evaluate the comparative cost of AF base administrative telephone service provided by government and commercial telephone plants. Fiscal year 1979 costs were surveyed and compared for 10 commercial and 10 government telephone plants. Cost data was normalized by using annual cost per main station. Study revealed that for existing commercial and government plants, there was no statistical difference in the annual Operations and Maintenance cost per main station. When indirect and overhead costs are allocated to the telephone plants then the annual cost per main station for a government plant is significantly higher than like cost for commercial plants.

Table of Contents

1. PURPOSE. The purpose of this study was to evaluate the comparative costs of base administrative telephone service provided by government and commercial telephone plants.

2. BACKGROUND. AFCC is undertaking telephone modernization programs for government and commercial telephone plants. As a part of this modernization effort, various economic analyses and cost studies have been undertaken to compare the relative merit of alternatives for providing improved telephone service to a base. In no study, however, has there been a one-to-one comparison of government and commercial telephone plants to determine the relative costs of providing this service to the Air Force.

3. METHODOLOGY. The basic study methodology was planned from the start to be a survey of the costs involved as opposed to a rigorous cost analysis. The intent was to use the data available on short notice from existing data systems, to develop the key cost parameters, and to attempt to draw meaningful conclusions about the relative difference in costs for telephone service provided by commercial or government plants. Twenty bases were selected for the sample (10 commercial plants and 10 government plants), and costs were collected, where possible, from the FY-79 cost experience.

4. DATA. This section describes the various data elements and data sources used in the survey.

a. SAMPLE. Figure 1 shows the bases which formed the sample. The sample was not random because it was planned from the beginning to match, as closely as possible, the size and features of the telephone systems for the commercial and government bases. This sample, therefore, excludes the many small bases which are commercial plants and most of the large bases which have government owned and maintained telephone plants. The figures in the parentheses in Figure 1 depict the demographic data which describes plant size, main stations, switchboard positions and AUTOVON trunks. For purposes of this survey, plant size is defined as the number of separate telephone numbers a system is capable of handling with the installed equipment. Main stations are defined as the number of telephone numbers actually in use, the number of switchboard positions represent the number actually installed at a base and not necessarily those which are in use, and the number of AUTOVON trunks depict trunks in use without regard for type (incoming, outgoing, precedence, etc.). The sources for this demographic data were HQ AFCC/EPPB and DONV.

BASES IN SAMPLE

COMMERCIAL		GOVERNMENT	
PEASE	(1400/1087/24/5)	BROOKS	(1600/1143/29/6)
MINOT	(1600/1345/26/3)	MATHER	(1700/1322/28/5)
DOVER	(1800/1114/29/3)	GEORGE	(1800/1250/29/4)
SHAW	(1800/1294/46/6)	TYNDALL	(1800/1473/27/7)
BERGSTROM	(1800/1500/62/5)	CHANUTE	(2000/1496/29/5)
HOMESTEAD	(2000/1622/33/6)	LACKLAND	(2200/1851/37/4)
McGUIRE	(2600/1994/44/5)	KEESLER	(2900/2399/46/6)
TRAVIS	(2600/2364/46/4)	GRIFFISS	(4200/2544/54/8)
HANSCOM	(3600/2308/59/5)	LOWRY	(3600/2796/94/6)
ROBINS	(4500/4088/105/7)	SCOTT	(3900/3266/167/14)

PLANT SIZE
MAIN STATIONS
AUTOVON TRUNKS
SWITCHBOARD POSITION

FIGURE 1

b. TOTAL COSTS. The survey was targeted at describing the total cost of providing telephone service to a base. The three major costs involved in the total cost picture are described below. The initial effort of the study was to collect annual base level O&M costs, determine from this data if meaningful conclusions could be drawn from the data, and to use the data as a gauge on whether or not additional collection of costs in the other categories would be required to draw meaningful and correct conclusions.

(1) ANNUAL BASE LEVEL O&M COSTS. The annual base level O&M costs consist of costs budgeted and funded by AFCC and by the host activity. AFCC costs consist primarily of military and civilian personnel costs and some ownership costs for vehicles assigned to the local AFCC unit. The host activity budgets and funds for tolls, rentals, parts, and support equipment (tools and test equipment).

BASE LEVEL O&M COSTS

COST	SOURCE	COMMENT
- ADMIN SWITCHBOARD OPERATORS	FY 4/79 UMD	$12000PER SLOT AVERAGE
- BILLING & LEASE COMM	FY 4/79 UMD	$15000PER SLOT AVERAGE
- WIRE CHIEF FUNCTION	FY 4/79 UMD	$18000 PER SLOT AVERAGE
- INSIDE PLANT MAINT - OUTSIDE PLANT MAINT - CABLE MAINT	FY 4/79 UMD	GRADES AS SHOWN IN CSC COST STUDIES
- ALLOCATED UNIT OVERHEAD	15% OF O&M SLOTS	$15000 PER SLOT AVERAGE
- TELEPHONE RENTALS/LEASE	MAJCOM/DC/ACB	EEIC-492 FY 79 TARGETS
- TOLLS/TRUNK CHARGE	MAJCOM/DC/ACB	EEIC-495 FY 79 TARGETS
- WIRE & OTHER CHARGES	MAJCOM/DC/ACB	EEIC-494, 496, 497 TARGETS
- VEHICLES	AUTH/ASSET LISTING	BASED ON-HAND TELEPHONE TRUCKS
- PARTS, CABLE UPGRADE, SUPPORT EQUIP, ETC.	CSC COST STUDY	HIGHLY VARIABLE

FIGURE 2

Figure 2 shows the annual base level O&M costs by category and source. Comments are also provided on the special considerations given to each cost category. For example, the unit manpower document identifies only the category of authorizations (officer, enlisted, civilian). The cost figures shown in the comment column on the chart were calculated by taking the total personnel costs of the entire function for government bases as surveyed by the Computer Science Corporation (CSC) and dividing that total personnel cost figure by the total authorizations. When specific CSC data was available (e.g., at government bases) this data was considered superior and was used in the survey. The allocation of unit overhead was based on the fact that certain functions are authorized manpower based on the population of the subfunctions. The overhead figure of 15 percent was extracted from the Introspective Look at AFCS - Phase II (Operations and Maintenance Exhibit). Expenses for Element of Expense Investment Code (EEIC) 49X costs were collected from the various MAJCOM Communications and Budget Staff Offices. The costs included in EEIC 49X contained some expenses for non-telephone services because of the way some of the MAJCOMs record expenses in EEIC 49X. The amount of these expenses is considered small in comparison to overall 49X costs. In most cases, reports were not yet available showing the funds actually expended in FY79, and the expense targets as of August 1979 were, therefore, used. Consequently, there will probably be differences between the targeted expenses and the actual expenses incurred for the bases in question, but the error introduced is considered small. Vehicle costs represent only those vehicles authorized specifically because the unit has telephone plant maintenance responsibility. Some general purpose vehicle costs were not collectible because such vehicles were authorized on the basis of unit population and are shared by multiple work centers. Costs for such miscellaneous items as spare parts, cable upgrades, support equipment, electricity, etc., were extracted from the CSC cost studies of the bases with government-owned telephone plants. The accuracy of this data was highly variable and depended largely on the availability of the data to the units involved in the survey.

(2) ANNUAL ENGINEERING, INSTALLATION AND MOBILE DEPOT MAINTENANCE (MDM) COSTS. Government telephone plants consume engineering, installation and MDM man-hours while commercial telephone plants primarily consume only engineering man-hours in the category of technical assistance (primarily for Statement of Requirement (SOR) development). A data retrieval against the Engineering, Installation and Man-Hour System (EIMS) data base was obtained for FY79 to determine the man-hours spent at each base in the sample for E&I and MDM work. The retrieval was run against commodity class codes A, B, D, and E (inside and outside plant) against the B facility codes 011, 012, 013, 015, 017 (government plants), and codes 021, 022, 023, 025, and 027 (for commercial plants). Figure 3 shows the results of that retrieval. The installation and maintenance man-hours recorded at Robins AFB were excluded from the studies since they represent man-hours expended by the E&I activity in the Telephone Central Repair Activity (CRA). Robins is a commercial plant and the CRA performs a depot level maintenance function for government telephone plants.

MANHOURS EXPENDED IN FY 79 -- RUN DATE 25 OCT 79

BASE	TELEPHONE INSIDE PLANT ENGINEERING JOBS	ENGINEERING MANHRS	MAINTENANCE JOBS	MAINTENANCE MANHRS	INSTALLATION JOBS	INSTALLATION MANHRS	TELEPHONE OUTSIDE PLANT ENGINEERING JOBS	ENGINEERING MANHRS	MAINTENANCE JOBS	MAINTENANCE MANHRS	INSTALLATION JOBS	INSTALLATION MANHRS	BASE
PEASE	1	35	0	0	0	0	3	84	0	0	0	0	PEASE
MINOT	0	0	0	0	0	0	13	276	0	0	0	0	MINOT
DOVER	0	0	0	0	0	0	4	72	0	0	0	0	DOVER
SHAW	1	40	0	0	0	0	1	172	0	0	0	0	SHAW
BERGSTROM	1	40	0	0	0	0	0	0	1	192*	0	0	BERGSTROM
HOMESTEAD	1	57	0	0	0	0	2	282	0	0	0	0	HOMESTEAD
MC GUIRE	0	0	0	0	0	0	3	189	0	0	0	0	MC GUIRE
TRAVIS	0	0	0	0	0	0	7	78	0	0	0	0	TRAVIS
HANSCOM	0	0	0	0	0	0	6	267	0	0	0	0	HANSCOM
ROBINS	1	245	1	96**	8	8785**	2	311	0	0	0	0	ROBINS
* TOTALS	5	417	1	96	8	8785	41	1751	1	192	0	0	* TOTALS
BROOKS	2	130	0	0	1	36	9	360	0	0	4	4750	BROOKS
MATHER	5	775	0	0	3	2065	7	345	4	1657	5	7098	MATHER
GEORGE	1	8	0	0	1	432	10	1192	1	70	4	3019	GEORGE
TYNDALL	13	637	1	251	5	6564	10	822	8	7588	13	34410	TYNDALL
CHANUTE	4	386	0	0	2	38	0	0	0	0	0	0	CHANUTE
LACKLAND	5	798	0	0	3	6045	14	649	0	0	12	16409	LACKLAND
KEESLER	3	232	0	0	1	16	13	1326	4	626	6	10682	KEESLER
LOWRY	4	4145	0	0	1	5180	28	2324	4	2471	8	4855	LOWRY
SCOTT	2	131	0	0	3	634	2	14	1	4118	3	4009	SCOTT
GRIFFISS	7	794	0	0	3	2486	3	486	8	3041	1	3184	GRIFFISS
* TOTALS	46	8236	1	251	23	23496	96	7518	30	19571	56	88416	* TOTALS
* OVERALL	51	8653	2	347	31	32281	137	9269	31	19763	56	88416	* OVERALL

EIMS Sort

ALL "B" Facility Codes

Govt Commercial

011 021

012 022

013 023

015 025

017 027

Commodity Codes

A D

B E

* TREATED AS Engineering Manhours - Miscell

** CRA workload perform By 1926 CIG

FIGURE 3

(3) INDIRECT COSTS. The following indirect costs were considered relevant to the study.

(a) Acquisition, Training and PCS of Military. Cost figures for the acquisition and training of military personnel were obtained from the Air Training Command Costs Analysis Directorate and represent the costs for recruiting, basic military training, PCS to the three-level school site, and costs of pay and training while in the three-level course. PCS costs were extracted from AFP 173-13. For the commercial bases operators and billing clerks were considered in this category and for the government bases the operators, billing clerks and maintenance personnel were considered.

(b) Allocation of Equipment Capital. The government equipment costs are considered Sunk Costs because the equipment has been installed for some time, and the capital is not retrievable, while the cost for the capital for commercial plants is essentially buried in the tariff structures and reflected in the lease rates and rentals in EEIC 492. No effort was attempted to specifically allocate equipment costs in this survey.

(c) Wholesale Logistic Support Costs. Commercial bases incur no wholesale logistic support costs while government plants incur significant amounts. The amount, however, could not be estimated because there were no figures immediately available on the cost of this support. AFLC uses in some of their logistic support cost studies a recurring item support cost of $166.25 per year per nationally stock numbered item, but for purposes of the study the time and effort involved in collecting this data was not considered worth the added information it would provide. Therefore, wholesale logistic support costs, which would be significant, were not collected in this survey.

(d) Base Operating Support. Base operating support was calculated at 16.3 percent of the O&M manpower costs. The source of the BOS rate was HQ AFCS/ACI.

(e) Intermediate and MAJCOM Staffs. While it is difficult to accurately describe the staff level manpower resources devoted to telephone plants, the following procedure was used to allocate these costs. At commercial bases 75 percent of the contracting staff at North and South Comm Areas were considered as dedicated to telephone plants. For each commercial base the prorated share of the contracting manpower staff was calculated on the basis of the percent of all the total Air Force commercial main stations in use at each base in the survey. For the government maintained plants, all 362XX manpower on the CONUS area staffs were counted and allocated to the government plants. The allocation was based on the percent of all CONUS government main stations used by the base in question.

c. NORMALIZED COSTS. In order to compare the costs of telephone plants of different size, the study normalized the costs using the following procedure. The plant size, main stations, AUTOVON trunks, and switchboard positions were postulated as the cost drivers in the base level O&M cost equation. These variables were then statistically tested by way of a multiple regression analysis to verify the

correlation between these variables and the base level incurred annual O&M costs. Exhibit I contains the results of this analysis. There was a very high correlation between the above-mentioned variables and the annual O&M costs ($r^2 > .92$), while main stations alone demonstrated an $r^2 > .9$. Mainstations were, therefore, selected as a normalized variable for costs and were also used when appropriate to allocate some of the indirect costs to the telephone plants.

5. RESULTS. The results of the data collection effort for annual O&M costs are shown in Figure 4. To test the statistical difference between the mean base level annual O&M costs for government plants (mean equals $485 per main station per year), and the mean for commercial plants ($507 per main station per year), a two sample T-test was used. See Figure 5 for the summarized results. The test results revealed that there was no statistical difference between the annual base level O&M costs per main station per government and commercial plants. See Exhibit II for details on the T-tests. Since the annual O&M cost revealed no significant difference, it was necessary to develop a more complete cost picture to see if the conclusion would change. Engineering/installation and MDM, acquisition/training and PCS, base operating support and intermediate MAJCOM level staff costs were, therefore, allocated to each telephone plant. The cost detail is shown in Figure 6, and the summarized results are in Figure 7.

BASE	UNIT	PLANT SIZE	LINES IN USE	AUTOVON TRUNKS	SWDB POSN	ADMIN OPRS	TELEPHONE BILLING & LEASE COMM	VEH	WIRE CHIEF	IN PLANT	OUT PLANT	CABLE REPAIR	DIST OVHD	RENT 492	TOLLS 495	OTH WIRE& LEASE	EQUIP & PARTS	ANNUAL TOTAL
PEASE	1916CS	1400	1087	24	5/5	156 (13)	30 (2)	0	0	0	0	0	30 (2)	181	29	70	0	496
BROOKS	Det 3 1923	1600	1143	29	6/3	78 (7)	0	3	18 (1)	66 (4)	83 (5)	16 (1)	45 (3)	98	12	0	63	482
MINOT	2150CS	1600	1345	26	3/3	132 (11)	30 (2)	0	0	0	0	0	30 (2)	259	33	33	0	517
MATHER	2034CS	1700	1322	28	5/3	122 (11)	15	5	36 (2)	99 (6)	167 (10)	35 (2)	75 (5)	36	67	10	95	762
DOVER	2016CS	1800	1114	29	3/3	180 (15)	30 (1)	0	0	0	0	0	45 (3)	359	37	24	0	675
GEORGE	2067CS	1800	1250	29	4/4	85 (8)	15	9	36 (2)	98 (6)	142 (9)	35 (2)	60 (4)	24	16	33	126	679
SHAW	2020CS	1800	1294	46	6/4	156 (13)	30 (2)	0	0	0	0	0	30 (2)	412	46	137	0	811
TYNDALL	2021CS	1800	1473	27	7/7	141 (12)	0	5	36 (2)	98 (6)	125 (7)	81 (5)	75 (5)	15	8	10	198	792
BERGSTROM	1882CS	1800	1500	62	5/5	180 (15)	30 (2)	0	0	0	0	0	45 (3)	460	55	37	0	807
CHANUTE	1963CS	2000	1496	29	5/5	135 (12)	15 (1)	4	18 (1)	99 (6)	97 (6)	32 (2)	60 (4)	30	27	6	97	620
HOMESTEAD	1942CS	2000	1622	33	6/5	156 (15)	52 (3)	0	0	0	0	0	30 (2)	517	20	65	0	840
LACKLAND	Det 2 1923	2200	1851	37	4/4	138 (13)	15 (1)	1	18 (1)	114 (7)	131 (8)	49 (3)	75 (5)	74	8	1	180	804
MCGUIRE	1998CS	2600	1994	44	5/5	204 (17)	60 (4)	0	0	0	0	0	45 (3)	436	106	111	0	962
KEESLER	2052CS	2900	2399	46	6/5	185 (17)	15 (1)	3	36 (2)	169 (10)	143 (9)	52 (3)	90 (6)	107	17	5	221	1043
TRAVIS	1901CS	2600	2364	46	4/4	204 (17)	45 (3)	0	0	0	0	0	45 (3)	518	40	100	0	952
GRIFFISS	485CIG	4200	2544	54	8/8	180 (15)	15 (1)	9	36 (2)	161 (13)	236 (16)	58 (3)	120 (6)	57	24	14	227	1137
HANSCOM	2014CS	3600	2308	59	5/5	180 (15)	30 (2)	0	0	0	0	0	45 (3)	870	110	55	0	1200
LOWRY	1987CS	3600	2796	94	6/6	195 (16)	15 (1)	6	36 (2)	203 (12)	375 (23)	110 (4)	135 (9)	132	104	0	104	1415
ROBINS	1926CIG	4500	4088	105	7/7	264 (22)	90 (6)	0	0	0	0	0	60 (4)	1193	257	150	0	2014
SCOTT	1974CG	3900	3266	167	14	339 (31)	15 (1)	9	54 (3)	257 (14)	456 (27)	52 (3)	180 (12)	169	118	12	72	1733

Figure 4

O&M DATA*

*Numbers shown in brackets represent authorized manpower.

ANNUAL O&M COST

COMMERCIAL				GOVERNMENT			
BASE	MAIN STATION	ANNUAL COST (000)	ANNUAL O&M COST PER MAIN STATION	BASE	MAIN STATION	ANNUAL COST (000)	ANNUAL O&M COST PER MAIN STATION
PEASE	1087	496	456	BROOKS	1143	482	422
MINOT	1345	517	384	MATHER	1322	762	576
DOVER	1114	675	606	GEORGE	1250	679	543
SHAW	1294	811	627	TYNDALL	1473	792	538
BERGSTROM	1500	807	538	CHANUTE	1496	620	414
HOMESTEAD	1622	840	518	LACKLAND	1851	804	434
McGUIRE	1994	962	482	KEESLER	2399	1043	435
TRAVIS	2364	952	403	GRIFFISS	2544	1137	447
HANSCOM	2308	1290	559	LOWRY	2796	1415	506
ROBINS	4088	2014	493	SCOTT	3266	1733	531
AVERAGE ANNUAL O&M COST PER MAIN STATION PER YEAR			507	AVERAGE ANNUAL O&M COST PER MAIN STATION PER YEAR			485

FIGURE 5

	INDIRECT COSTS								EI & MDM COSTS						
BASE	TOTAL AUTH	TOTAL MIL AUTH	ACQ COSTS MIL	PCS COSTS	BOS COSTS	% MAIN STN	MAJCOM & AREA OH	INDIR TOTAL	ENGR COSTS (22.27)	MDM COSTS (15.13)	INSTALLER COSTS (15.13)	EI OH (3.75)	EI & MDM TOTAL	ADJ	TOTAL COSTS
PEASE	17	12	15.0	21.0	35	.0131	8	79.0	3	0	0	0	3	0	578
BROOKS	21	8	12.0	16.0	50	.0122	3	81.0	11	0	72	20	103	- 21	645
MINOT	15	12	15.0	6.0	31	.0162	9	61.0	6	0	0	1	7	0	585
MATHER	37	15	23.0	8.0	89	.0141	4	124.0	25	25	139	45	234	- 5	1115
DOVER	20	1	1.3	.5	42	.0134	8	52.0	2	0	0	0	2	0	729
GEORGE	32	17	26.0	9.0	77	.0133	3	115.0	27	1	52	17	97	- 40	851
SHAW	17	1	1.3	.5	35	.0156	9	46.0	5	0	0	1	6	0	863
TYNDALL	37	16	25.0	8.0	91	.0157	4	128.0	37	119	620	189	965	- 79	1606
BERGSTROM	20	1	1.3	.5	42	.0181	10	45.0	5	0	0	1	6	0	858
CHANUTE	32	11	17.0	5.0	74	.0159	4	100.0	9	0	1	2	12	- 6	726
HOMESTEAD	18	2	2.5	2.5	39	.0195	11	55.0	8	0	0	1	9	0	904
LACKLAND	38	11	17.0	5.0	88	.0197	5	115.0	32	0	340	89	461	-106	1274
MCGUIRE	24	2	2.5	2.5	50	.0240	14	69.0	4	0	0	1	6	0	1037
KEESLER	48	13	20.0	6.0	112	.0255	6	144.0	35	9	162	48	254	-117	1324
TRAVIS	23	2	2.5	2.5	48	.0285	15	68.0	2	0	0	0	2	0	1022
GRIFFISS	50	10	15.0	5.0	131	.0271	7	158.0	29	46	86	37	198	-209	1284
HANSCOM	20	2	2.5	2.9	42	.0278	16	63.4	6	0	0	1	7	0	1360
LOWRY	67	38	58.0	19.0	174	.0297	7	258.0	144	37	152	71	404	- 30	2047
ROBINS	32	2	2.5	2.5	67	.0440	25	97.0	12	0	0	2	14	0	2125
SCOTT	91	35	54.0	18.0	220	.0347	9	301.0	3	62	70	33	168	+ 2	2204

Figure 6

INDIRECT, EI & MDM COSTS

TOTAL ANNUAL COST

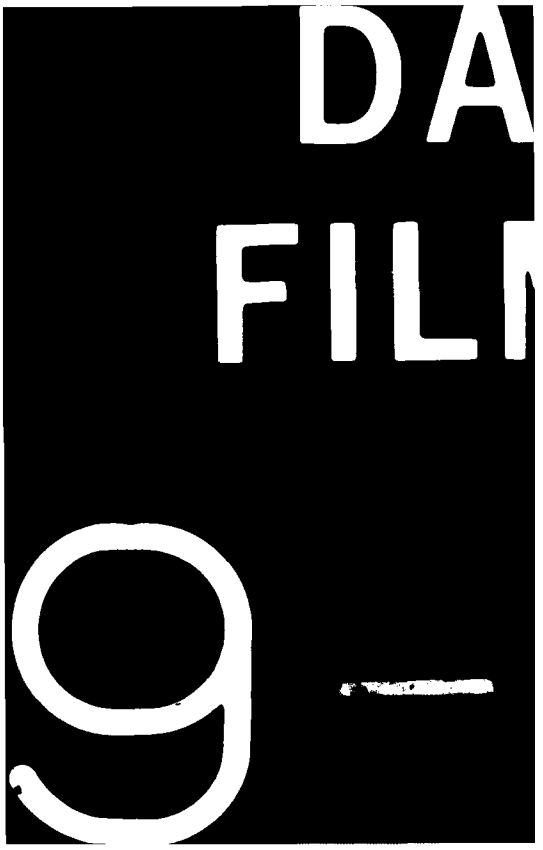
COMMERCIAL				GOVERNMENT			
BASE	MAIN STATION	ANNUAL COST (000)	TOTAL COST PER MAIN STATION	BASE	MAIN STATION	ANNUAL COST (000)	TOTAL COST PER MAIN STATION
PEASE	1087	496	532	BROOKS	1143	482	564
MINOT	1345	517	435	MATHER	1322	762	843
DOVER	1114	675	654	GEORGE	1250	679	681
SHAW	1294	811	667	TYNDALL	1473	792	1226
BERGSTROM	1500	807	572	CHANUTE	1496	620	485
HOMESTEAD	1622	840	557	LACKLAND	1851	804	688
McGUIRE	1994	962	520	KEESLER	2399	1043	552
TRAVIS	2364	952	432	GRIFFISS	2544	1137	505
HANSCOM	2308	1290	589	LOWRY	2796	1415	732
ROBINS	4088	2014	520	SCOTT	3266	1733	675
AVERAGE ANNUAL COST PER MAIN STATION PER YEAR			548	AVERAGE ANNUAL COST PER MAIN STATION PER YEAR			695

FIGURE 7

Again, a two sample T-test was conducted to test the statistical difference in the means of the total cost per main station for government and commercial plants. Test results show that there was a significant statistical difference between the government costs and the commercial costs. The total annual cost per main station for a government plant ($695 per main station per year) was significantly higher (at the 3% significance level) than the total annual costs per main station for a commercial plant ($548 per main station per year). See Exhibit III for the test results.

6. CONCLUSIONS. For the electro-mechanical telephone plants currently installed at Air Force bases, there is no statistical difference in the annual base level incurred O&M cost per main station. However, when all costs are allocated to the telephone plants (base level O&M, Engineering, Installation and MDM, and indirect costs) the cost per main station for government plants is significantly higher. The reason for this difference is that base level O&M costs for commercial plants represent a fairly complete description of the total cost picture (significantly more costs can be allocated to the government plant than the commercial plant under a full cost approach). It is also important to point out that with the new telephone systems currently available from the commercial market place, there is significant possibility for savings in annual O&M costs. In fact, this is the principle justification for the Scope Dial program, and the O&M savings alone allow the program to offer a return on investment of three to six years, depending on the base. While the costs to the commercial telephone companies for providing telephone service is decreasing (as companies install new equipment and thus reduce their O&M cost),it is not necessarily reflected in reduced tariff rates, and it is uncertain exactly how much change there will be in the future for the annual O&M costs for commercial telephone plants in so much as these costs are driven by the tariff rates which are controlled by the various regulatory commissions. In fact, commercial O&M costs could even increase if telephone service with additional features (all at added costs) is acquired at those bases serviced by commercial telephone plants.

7. RECOMMENDATIONS. Recommend the development of a base level administrative telephone model which will serve two predominant functions. First, it will serve as a productivity measure which allows management and staff to determine how well a telephone plant is being managed and to determine what is the cost of telephone service to the base. This will be particularly useful in determining if the Scope Dial program does, in fact, result in reduced O&M costs and would also be useful in providing various cost data needed for the comparative cost analyses conducted in accordance with OMB Circular A-76. HQ AFCS/ACI has agreed to take the lead in developing a base level admin telephone model which will serve the purposes described above. There is also the need, however, to evaluate such issues as responsiveness of service and responsiveness to customer requirements for commercial and government plants. During the survey some information was obtained which indicates that the telephone companies in some locations cannot be paid enough money, within the existing tariff structure, to cause them to perform emergency or overtime work to meet base level mission and service requirements. The constraining factor has been the unions and the employees unwillingness to accept the overtime work needed to accomplish these emergency priority jobs which require overtime.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